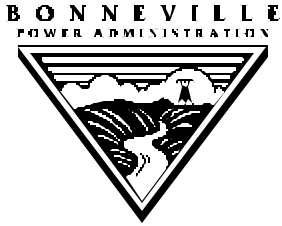
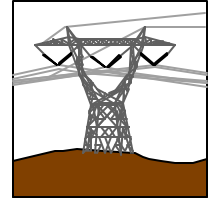


Reliability and Future of Transmission Costs

“Balancing reliability and open-access with costs.”



Reliability and Future of Transmission Costs



Please note that the following slides have changed since the presentation:

Changes as of Dec. 1, 1999

Page 11 fixed graph to show main grid percentage.

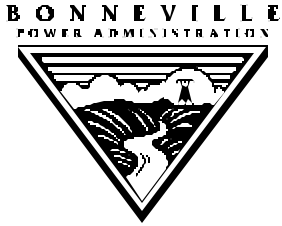
Pages 23, 24 and 26 added footnotes.

Pages 27, 28, 29, 30, and 31. Filled in detail for subprogram expenditures, and added explanatory footnotes.

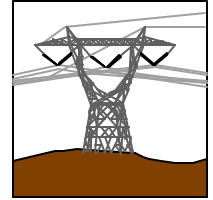
Pages 37, and 40 removed graphs for revision.

Changes as of Dec. 6, 1999

Pages 37, and 40 replaced. With the addition of page 2 (this page) they have become pages 38, and 41. Other page numbers also increase by one.

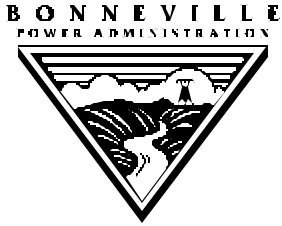


November Meetings

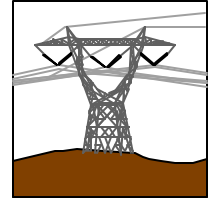


| | | |
|-------------------|-------------|--|
| November 15, 1999 | Kennewick | TBL Account Executive: Joe Rogers |
| November 16, 1999 | Idaho Falls | TBL Account Executive: Sue Furst |
| November 22, 1999 | Seattle | TBL Account Executive: Tom Noguchi |
| November 23, 1999 | Spokane | TBL Account Executive: Bob King |
| November 30, 1999 | Portland | TBL Account Executive Manager: Ruth Bennett |

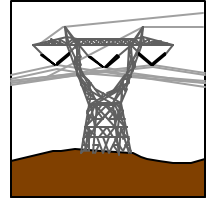
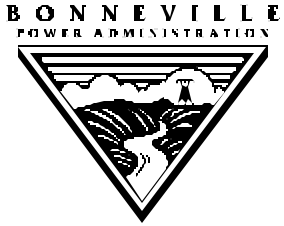
All meetings are 9:00-4:00.



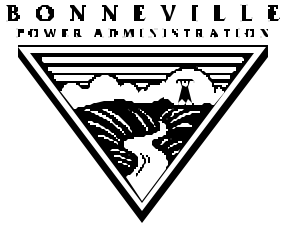
AGENDA



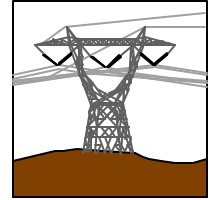
-
- | | |
|-------------------|---|
| 9 a.m. | Welcome and Purpose of the Meeting -TBL Account Executive |
| 9:15 a.m. | History of TBL Costs – Alan Courts, TBL Vice-President for Engineering and Technical Services |
| 10:15 a.m. | BREAK |
| 10:30 a.m. | The Future of TBL Expenses – Overview - Brian Silverstein, TBL Acting Vice-President For Marketing and Sales |
| 11:45 a.m. | LUNCH |
| 12:45 p.m. | The Future of TBL Expenses - Fred Johnson, TBL Vice-President for Field Services |
| 2 p.m. | BREAK |
| 2:15 p.m. | The Future of Fiber Optic and Capital Investments - Vickie VanZandt, TBL Vice-President for Operations and Planning |
| 4 p.m. | ADJOURN |



History of TBL Costs FY 1992 to Present

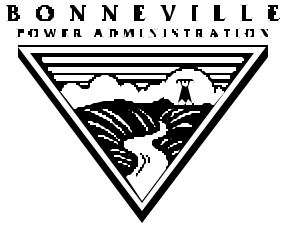


History of TBL Costs

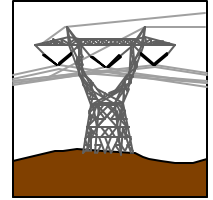


Initial Drivers for Change 1992-1994

- Energy Policy Act of 1992 set the stage for deregulation and open access transmission
- BPA entered financial crisis from continued drought and low aluminum prices
- A 15% power rate hike put BPA in precarious position in competitive markets for the first time
- National Marine Fisheries Service listed Snake River salmon under the Endangered Species Act
- Treasury borrowing limit became a strategic concern

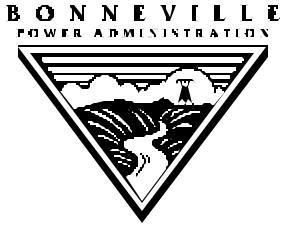


History of TBL Costs

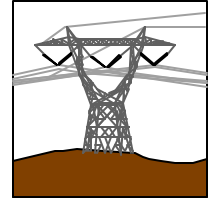


Additional Drivers for Change 1995 - Present

- FERC issues Rules 888 & 889 to set guidelines for open access and industry restructuring
- Transmission Rate Case - flat rates through 2001 - allows customers to buy delivery facilities
- Regional Review issues recommendations
- Political climate becomes less predictable
- 1996 Western system outages occur
- Cost Review Board issues recommendations
- FERC NOPR on RTO

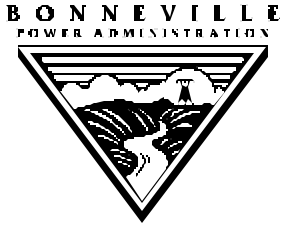


History of TBL Costs

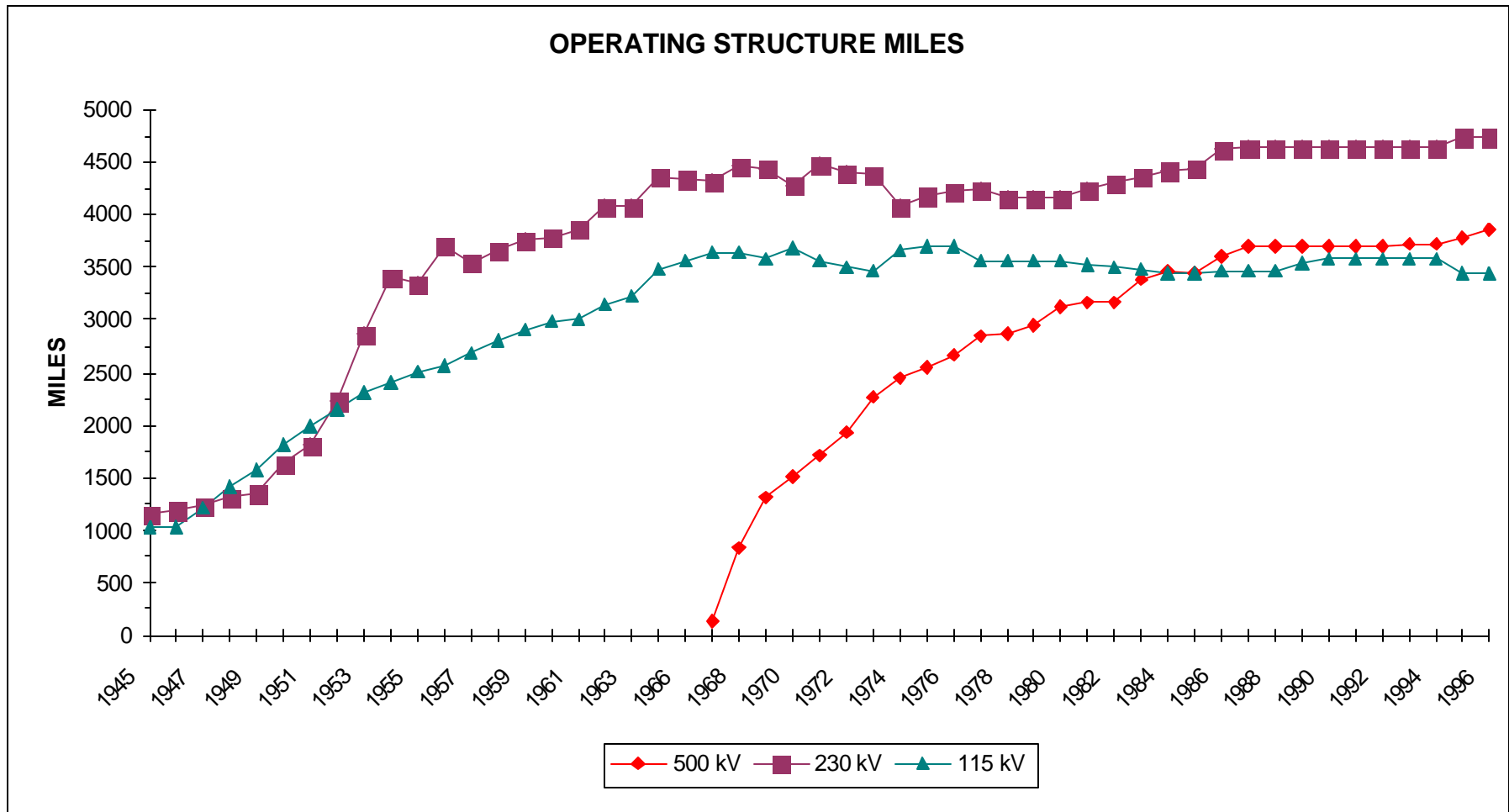
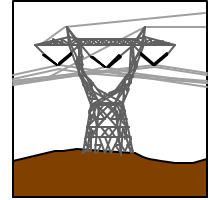


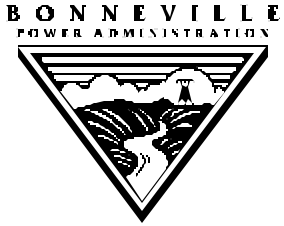
Responses to Drivers

- BPA reengineers - results in reorganization and process improvements
- Budget and FTE cuts made - VSIs offered - focus on TBL margin management & revenue generation added
- Capital program further reduced to extend borrowing authority indefinitely
- BPA split into business lines - functional separation of Transmission from Power moves to complete physical separation

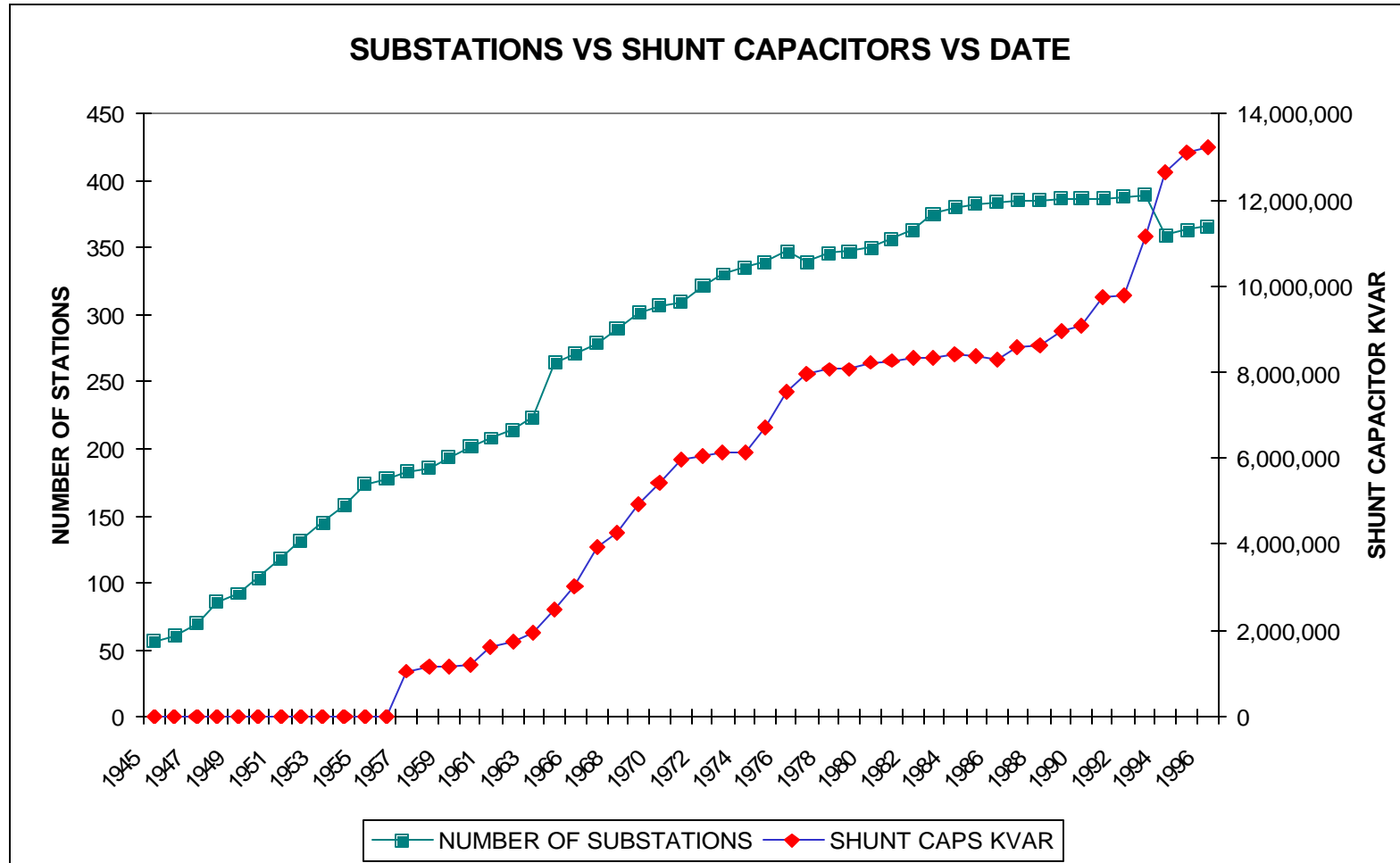
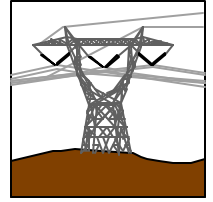


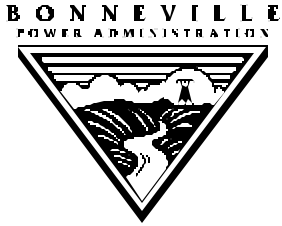
History of TBL Costs



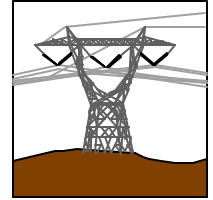


History of TBL Costs

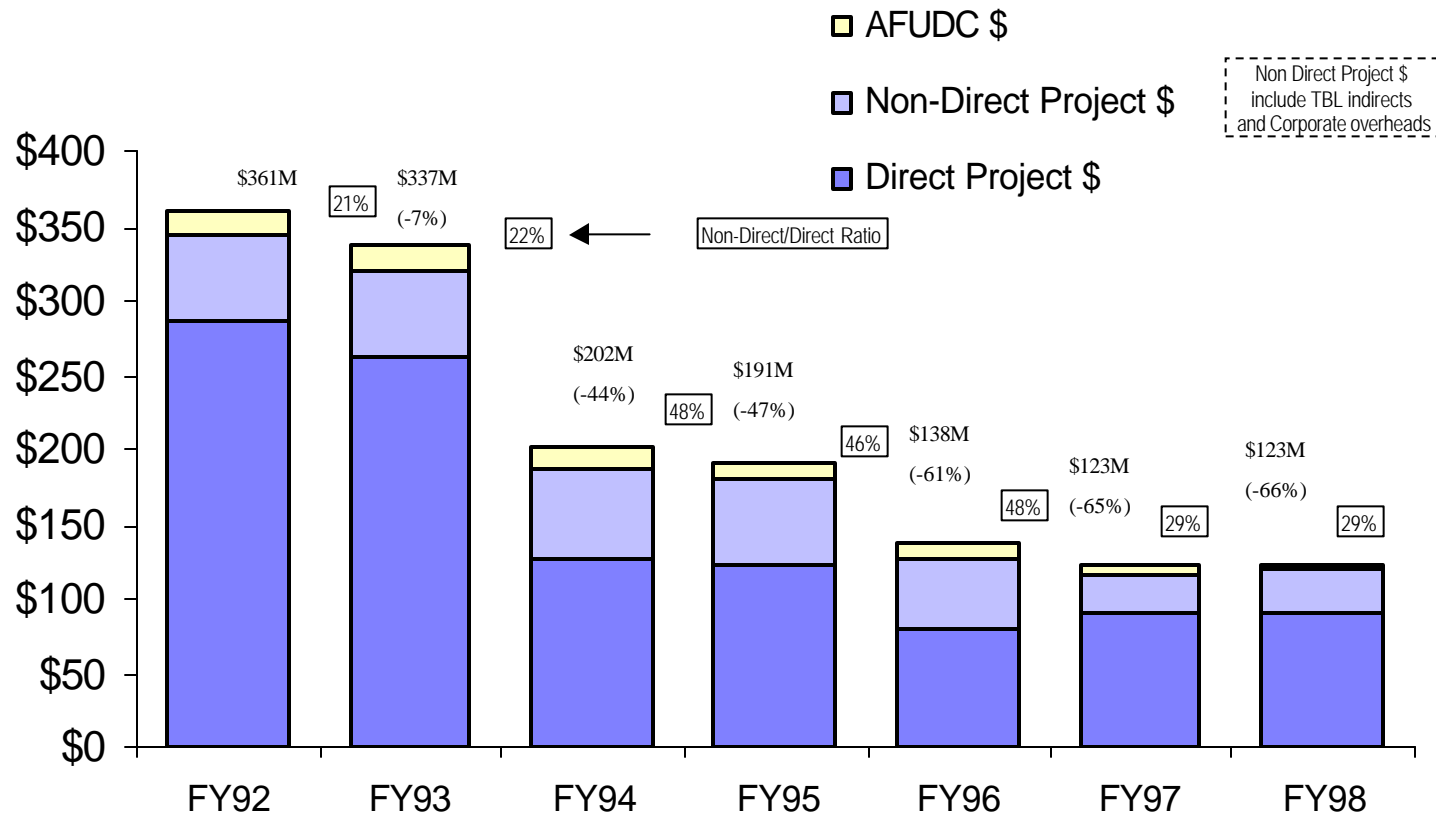


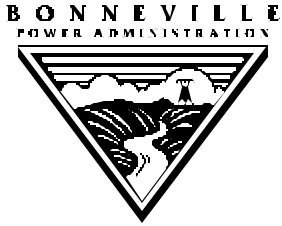


History of TBL Costs

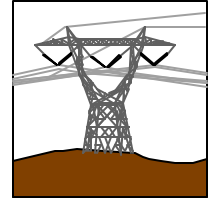


TBL Capital Projects Historical Trend



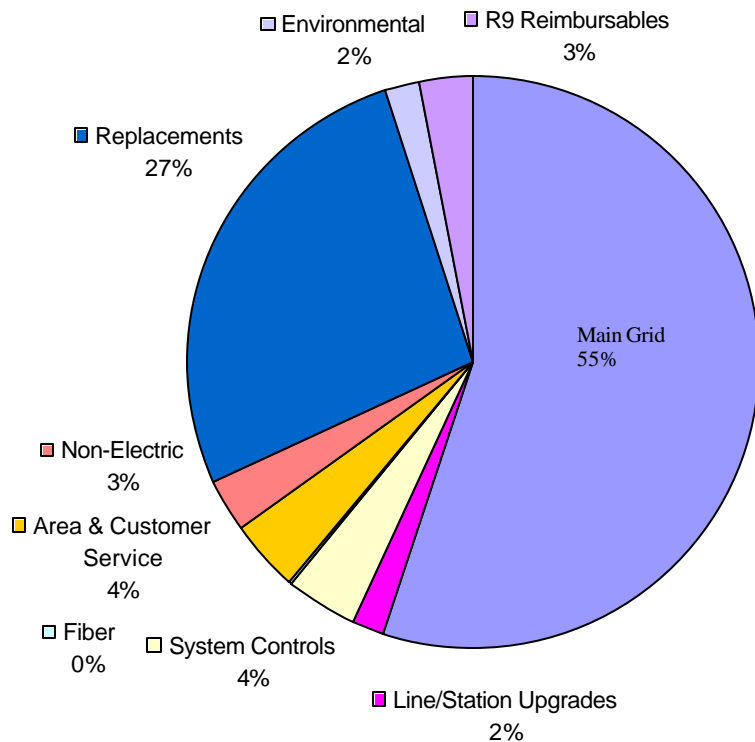


History of TBL Costs

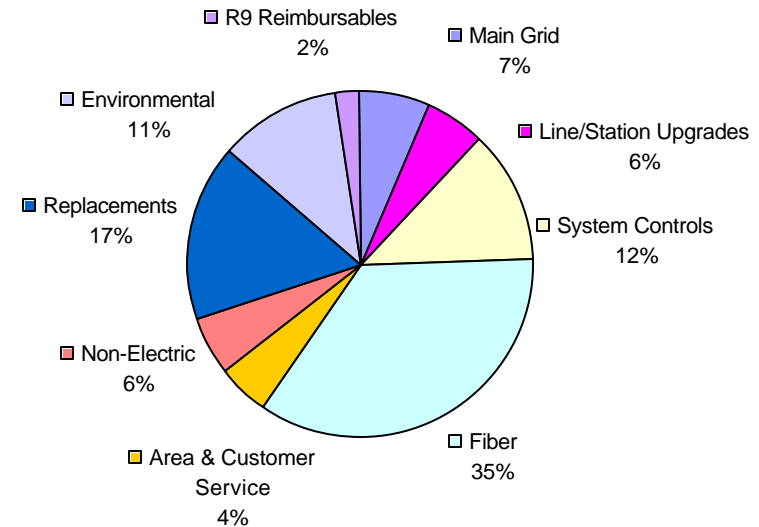


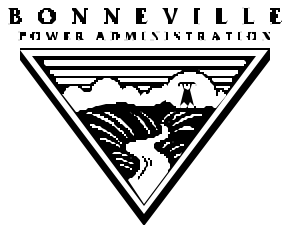
Capital Project Profile

Capital Projects FY92 (\$361M program)

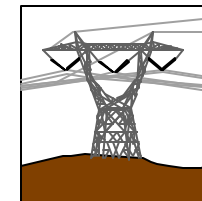


Capital Projects FY98 (\$123M program)



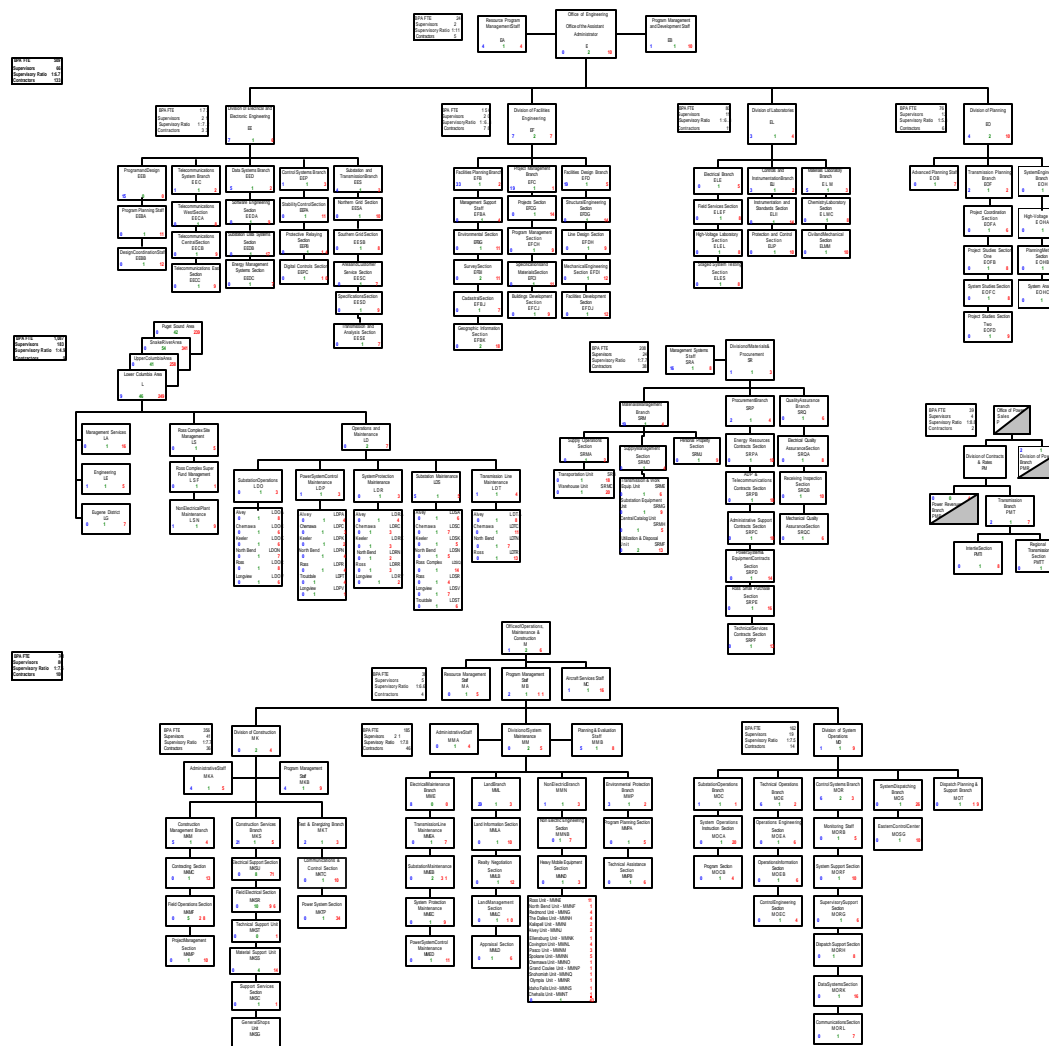


History of TBL Costs

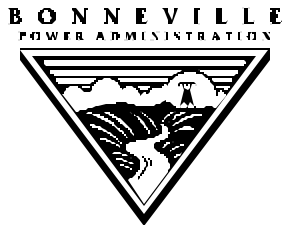


Transmission Functions October 1992

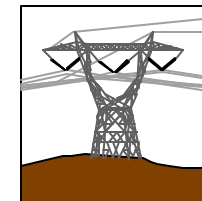
| Total | |
|-------------------|-------|
| BPA FTE | 2,598 |
| Supervisors | 363 |
| Supervisory Ratio | 1:6.1 |
| Contractor | 283 |



December 1, 1999



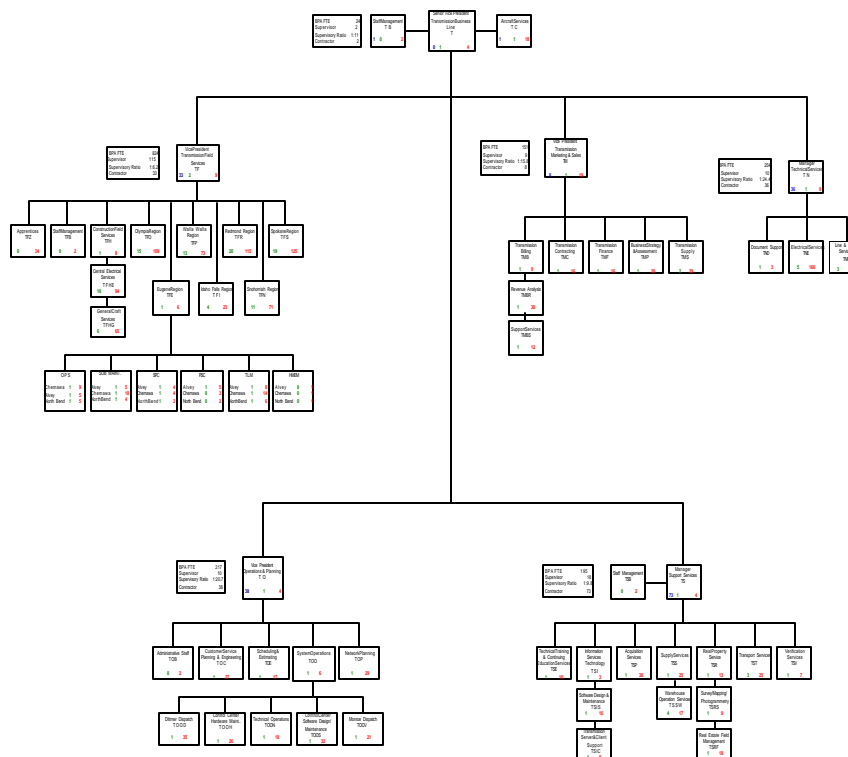
History of TBL Costs

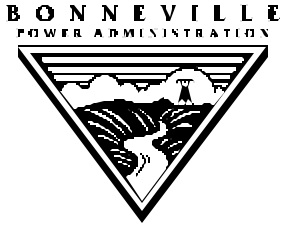


Transmission Business Line February 1998

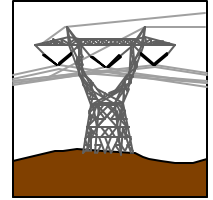
Total

BPA FTE 1,665
Supervisor 164
Supervisory Ratio 1:9.2
Contractor 190

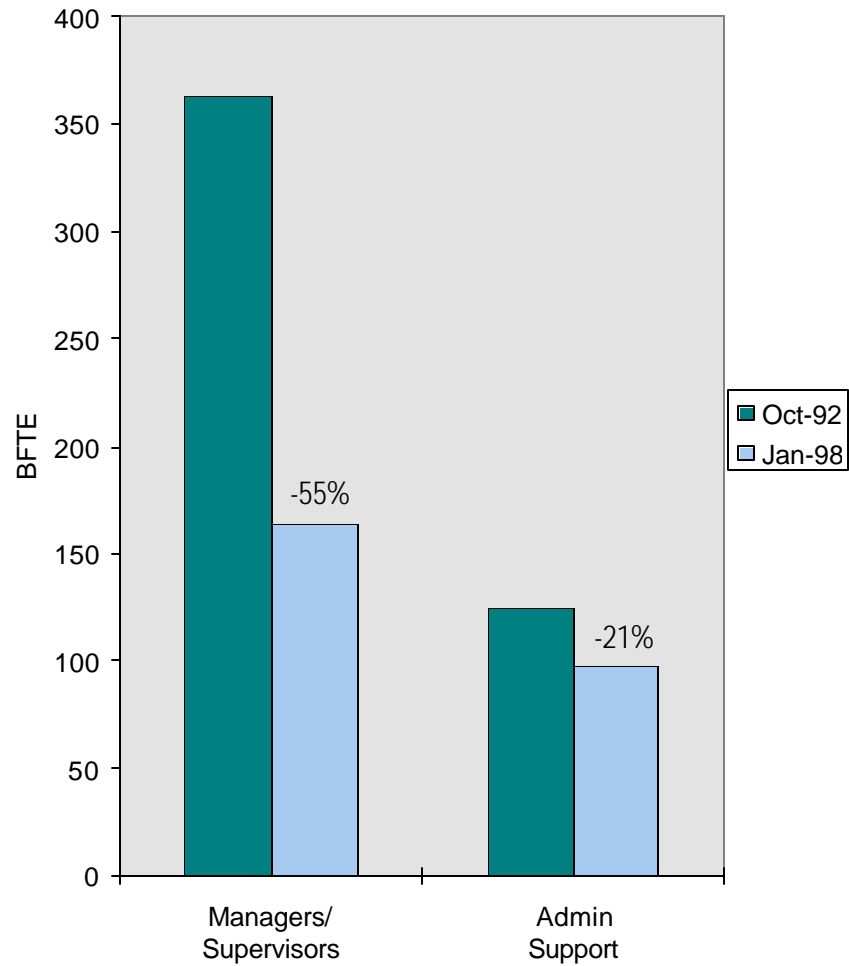
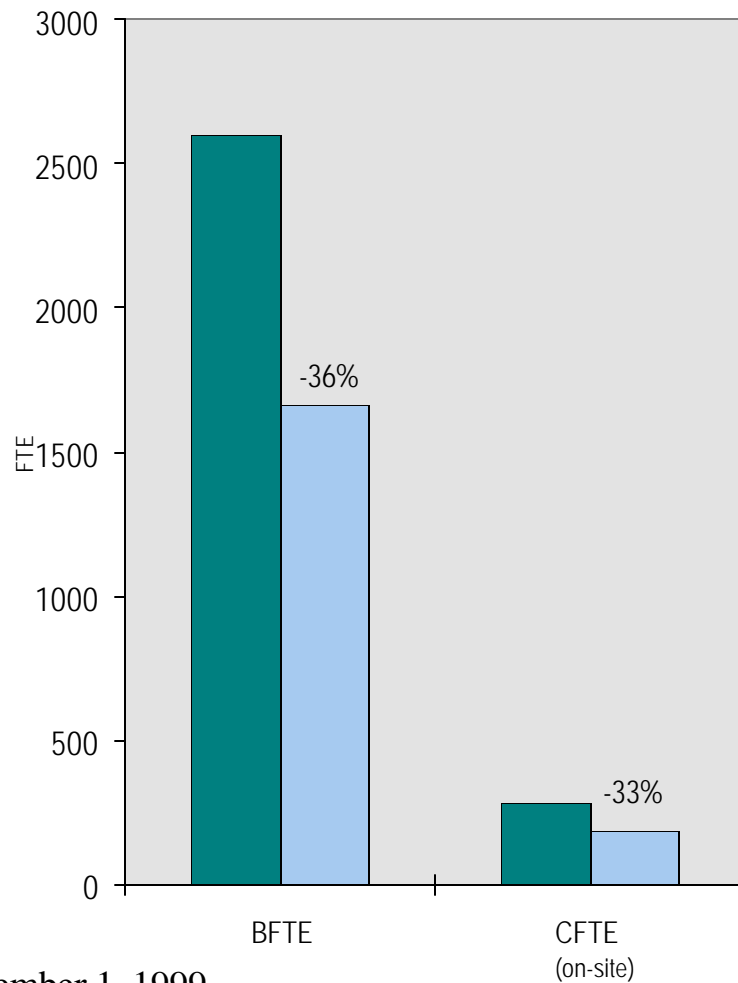




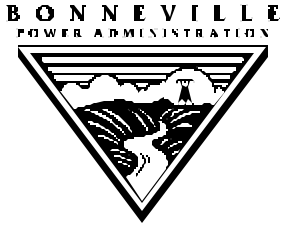
History of TBL Costs



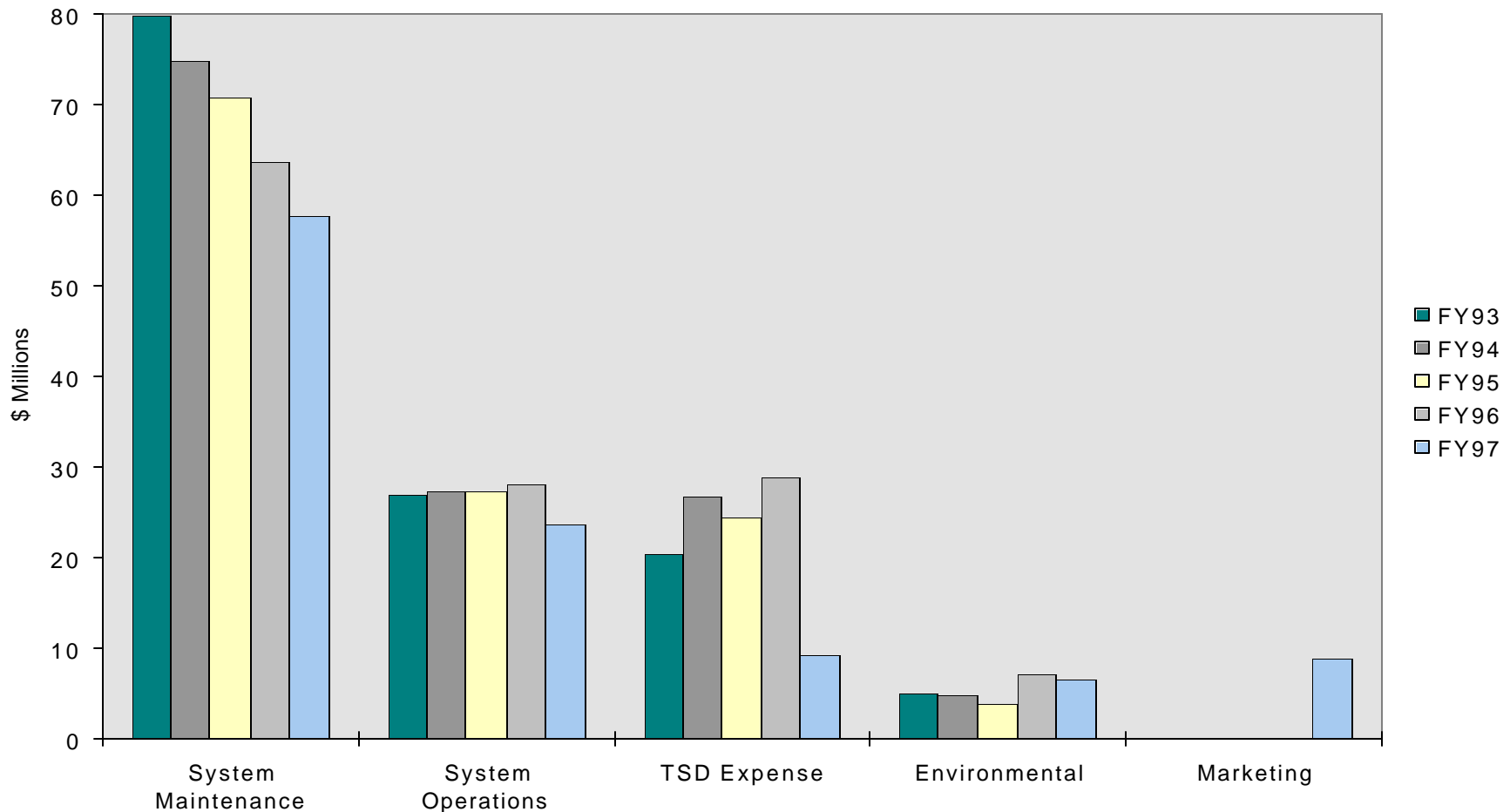
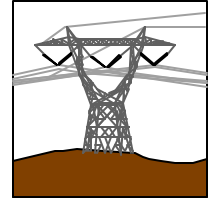
FTE Trends

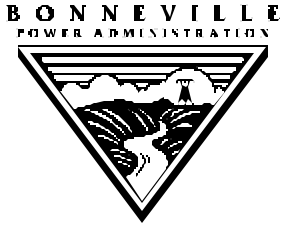


December 1, 1999

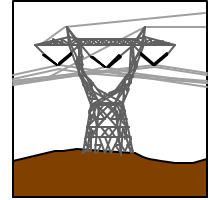


TBL Direct Expense Historical Trend





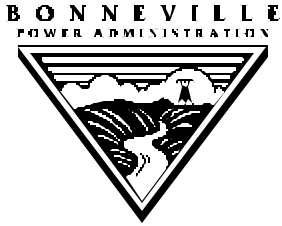
History of TBL Costs



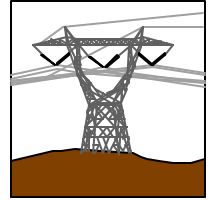
Summary 1992 to Present:

- Total Capital Program reduced by 66%
 - Main Grid portion down 84%
 - Replacement portion down 75%
 - Nondirect portion (TBL indirects/Corp overheads) down 56%
- Total Expense Program reduced 21%
 - Maintenance portion down 27%
 - R&D portion down 86%
- Total contracting \$ down 60%
- On-site contract FTE down 33%
- Total Transmission BFTE down 36%

* not adjusted for inflation



History of TBL Costs



Findings:

- The nature of the work has changed
 - Development & expansion → maintenance of the grid
- The system is not getting smaller, it's getting older
 - It's time to replace and upgrade equipment
- We're getting older too
 - Half of TBL is eligible to retire; more in critical jobs
 - TBL must reconsider skills mix and staffing
- Electric utility industry is changing